

# RNAconcentrator™

## Concentrate dilute, aqueous RNA samples to small volumes

- Concentrate small amounts of RNA ( $\geq 10$  pg in 500  $\mu$ l) to only 10  $\mu$ l
- Minimize sample loss – no wash steps
- Protect RNA integrity during concentrating process

### Key Benefits:

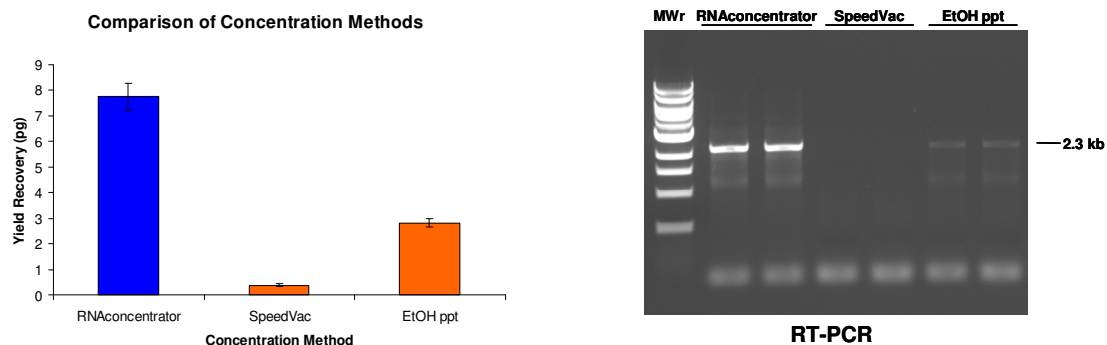
- Minimize loss of starting material
- Protect RNA integrity during the concentrating process
- Store dried samples at room temperature for up to 1 week

### Product Features:

- Format: Individual 1.7 ml snap-cap tubes
- Sample source: Purified total or poly(A) RNA aqueous solutions
- Initial sample size: Up to 50  $\mu$ g RNA in a maximum starting volume of 500  $\mu$ l
- Rehydration volume: Minimum of 10  $\mu$ l

RNAconcentrator is designed to concentrate dilute, aqueous RNA solutions from picogram amounts of starting material to only 10  $\mu$ l. The unique stabilization medium allows for improved recovery as compared to traditional methods, as the thermo-stable properties of RNAconcentrator protect samples from further degradation. It is easy to use - samples are applied into the RNAconcentrator tube and dried down. The dried RNA sample can then be conveniently stored for up to 1 week at room temperature until ready for use. Concentrated RNA can be used directly in downstream applications without further purification, thus avoiding sample loss typically associated multiple wash steps.

## Concentration of Picogram Amounts of RNA



**Comparison of Concentration Methods. (Left)** Aliquots of 10 pg of purified total RNA in 100  $\mu$ l volume was concentrated using RNAconcentrator or into an empty tubes (SpeedVac), and also using ethanol precipitation (EtOH ppt). Concentrated samples were rehydrated in 10  $\mu$ l of water and 2.5  $\mu$ l of each sample was used for quantitative RT-PCR analysis using TaqMan reagents (18S ribosomal RNA). Results indicate significantly improved recovery of concentrated RNA using RNAconcentrator as compared to conventional methods. **(Right)** Aliquots of ~100 ng of purified total RNA in a 100  $\mu$ l volume was concentrated using a SpeedVac into tubes with RNAconcentrator or into an empty tubes (SpeedVac), and also using ethanol precipitation (EtOH ppt). Concentrated samples were resuspended in 10  $\mu$ l water and used as input template for reverse-transcription PCR (RT-PCR) for amplification of the human *Hsp90* amplicon (2.3 kb). Results indicate more abundant amplification from RNA templates concentrated with RNAconcentrator as compared to conventional methods.

**Procedure:**

- Dilute, aqueous solutions of purified total or poly(A) RNA are applied into tubes containing RNAconcentrator from as little as 10 pg starting material in a maximum volume of 500 µl.
- Samples are then dried using a vacuum concentrator and can then be conveniently stored for up to 1 week at room temperature.
- Concentrated RNA can be rehydrated in only 10 µl in appropriate buffer or water and used immediately without further purification.

**Applications:**

RNAconcentrator is compatible with the following applications:

- Quantitative RT-PCR (e.g. TaqMan<sup>®</sup>, SYBRGreen<sup>®</sup>)
- Quantitation analysis (e.g. Qubit<sup>™</sup> platform, Ribogreen<sup>®</sup>)
- Bioanalyzer and microarray analysis
- Reverse transcription
- cDNA synthesis
- Agarose gel electrophoresis

**RNAconcentrator is available in the following format:**

93421-003: RNA Concentrator Tube Kit (25 tubes)

For ordering information, please call 866-378-6879 or visit [www.biomatrica.com](http://www.biomatrica.com)